

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-31. (canceled).

32. (previously amended): A collapsible filter element for a transcatheter embolic protection device, the filter element comprising:

a collapsible filter body which is movable between a collapsed stored position for movement through a vascular system and an expanded position for extension across a blood vessel such that blood passing through the blood vessel is delivered through the filter element;

a proximal inlet portion of the filter body having one or more inlet openings sized to allow blood and embolic material to enter the filter body;

a distal outlet portion of the filter body having a plurality of outlet openings sized to allow through-passage of blood, but to retain embolic material within the filter body; and

a filter support frame for supporting the filter body in the expanded position extended across a blood vessel;

the filter body having laminated regions comprising at least two layers extending along the length of at least two of the regions and wherein the regions comprise varying hardness or stiffness along the length between the two regions resulting from different thickness or materials of the laminated regions.

33. (original): A filter element as claimed in claim 32 wherein the filter body has a durometer of between 60D and 70A Shore hardness.

34. (previously presented): A filter element as claimed in claim 32 wherein the filter body has a first relatively stiff portion and a second relatively soft portion.

35. (currently amended): A collapsible filter element for a transcatheter embolic protection device, the filter element comprising:

a collapsible filter body which is movable between a collapsed stored position for movement through a vascular system and an expanded position for extension across a blood vessel such that blood passing through the blood vessel is delivered through the filter element;
a proximal inlet portion of the filter body having one or more inlet openings sized to allow blood and embolic material to enter the filter body;

a distal outlet portion of the filter body having a plurality of outlet openings sized to allow through-passage of blood, but to retain embolic material within the filter body; and
a filter support frame for supporting the filter body in the expanded position extended across a blood vessel;

the filter body having laminated regions comprising at least two layers extending along the length of at least two of the regions and wherein the regions comprise varying hardness or stiffness along the length between the two regions resulting from different thickness or materials of the laminated regions,

wherein the filter body has a first relatively stiff portion and a second relatively soft portion and A filter element as claimed in claim 34 wherein the first portion has a larger wall thickness than a wall thickness of the second portion.

36. (previously presented): A filter element as claimed in claim 34, wherein the filter body comprises a proximal body section and a distal body section, one of which forms said stiff first portion and the other forming the soft second portion.

37. (original): A filter element as claimed in claim 36 wherein the proximal body section forms the soft second portion.

38. (previously presented): A filter element as claimed in claim 34, wherein the filter body comprises a proximal body section and a distal body section interconnected by an intermediate body section, one or both of the proximal body section and the intermediate body section forming the soft second portion, the distal body section forming the stiff first portion.

39. (currently amended): A collapsible filter element for a transcatheter embolic protection device, the filter element comprising:

a collapsible filter body which is movable between a collapsed stored position for movement through a vascular system and an expanded position for extension across a blood vessel such that blood passing through the blood vessel is delivered through the filter element;
a proximal inlet portion of the filter body having one or more inlet openings sized to allow blood and embolic material to enter the filter body;

a distal outlet portion of the filter body having a plurality of outlet openings sized to allow through-passage of blood, but to retain embolic material within the filter body; and

a filter support frame for supporting the filter body in the expanded position extended across a blood vessel;

the filter body having laminated regions comprising at least two layers extending along the length of at least two of the regions and wherein the regions comprise varying hardness or stiffness along the length between the two regions resulting from different thickness or materials of the laminated regions,

wherein the filter body has a first relatively stiff portion and a second relatively soft portion, the filter body comprises a proximal body section and a distal body section, one of which forms said stiff first portion and the other forming the soft second portion, and ~~A filter element as claimed in claim 36, wherein the proximal body section has a ribbed outer surface.~~

40. (currently amended): A collapsible filter element for a transcatheter embolic protection device, the filter element comprising:

a collapsible filter body which is movable between a collapsed stored position for movement through a vascular system and an expanded position for extension across a blood vessel such that blood passing through the blood vessel is delivered through the filter element;

a proximal inlet portion of the filter body having one or more inlet openings sized to allow blood and embolic material to enter the filter body;

a distal outlet portion of the filter body having a plurality of outlet openings sized to allow through-passage of blood, but to retain embolic material within the filter body; and

a filter support frame for supporting the filter body in the expanded position extended across a blood vessel;

the filter body having laminated regions comprising at least two layers extending along the length of at least two of the regions and wherein the regions comprise varying hardness or stiffness along the length between the two regions resulting from different thickness or materials of the laminated regions,

wherein the filter body has a first relatively stiff portion and a second relatively soft portion, the filter body comprises a proximal body section and a distal body section, one of which forms said stiff first portion and the other forming the soft second portion, and a plurality of spaced-apart longitudinal ribs are provided on the proximal section.

41. (currently amended): A collapsible filter element for a transcatheter embolic protection device, the filter element comprising:

a collapsible filter body which is movable between a collapsed stored position for movement through a vascular system and an expanded position for extension across a blood vessel such that blood passing through the blood vessel is delivered through the filter element; a proximal inlet portion of the filter body having one or more inlet openings sized to allow blood and embolic material to enter the filter body;

a distal outlet portion of the filter body having a plurality of outlet openings sized to allow through-passage of blood, but to retain embolic material within the filter body; and

a filter support frame for supporting the filter body in the expanded position extended across a blood vessel;

the filter body having laminated regions comprising at least two layers extending along the length of at least two of the regions and wherein the regions comprise varying hardness or

stiffness along the length between the two regions resulting from different thickness or materials of the laminated regions,

wherein the filter body has a first relatively stiff portion and a second relatively soft portion, the filter body comprises a proximal body section and a distal body section, one of which forms said stiff first portion and the other forming the soft second portion, and the proximal body section includes corrugations.

Claims 42-62. (canceled).

63. (previously presented): A filter element as claimed in claim 32, including a filter diameter between 4 mm and 6 mm.

64. (canceled).